

# **Asymptotic Theory for Geostatistical Regression Model**

## **Selection**

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### **Abstract**

Model selection is well studied in statistics which is generally applied by some information criteria, such as Akaike's information criterion and Bayesian information criterion. However, their asymptotic behaviors for selecting geostatistical regression models have not been well studied particularly under the fixed domain asymptotic framework with more and more data observed in a bounded fixed region. This talk aims at introducing some background of geostatistical regression models and asymptotic theory of the generalized information criterion (GIC) we developed. Some examples are given at the end of this talk, in which we show some non-standard behaviors of GIC under the fixed domain asymptotic framework.